

## IN THE CLAIMS

1. (original) Gluing unit for the terminal edge of a log positioned on a support structure (12) of a machine for realizing logs, wherein said structure (12) envisages a sloping surface (13) for feeding the logs (14) coming from a rewinding machine and wherein the end of said sloping surface (13) is mounted with a rotating sorting device (15) provided with a series of pockets (15a) to receive the individual logs (14) and to feed them towards an actual gluing unit (11) characterized in that said gluing unit (11) comprises in sequence, a lower unwinding roller (16), and at least one upper feeder belt (17, 26), that collaborate towards the forward travel of said logs and to the evacuation of the glued log towards an evacuation surface (34), and immediately downstream of said unwinding roller (16), a first section of sloping surface (21) followed by a timing roller (22) in turn followed by a second section of sloping surface having a pre-established length (23) followed finally by a suction roller (24) connected to a vacuum source over which is positioned an upper roller (25) which can be height adjusted, and a successive glue distributor device (27), also envisaged in a position higher than said unwinding roller (16) is a blowing element (19) for the terminal edge (29) of said log (14) and in a lower position, a photocell (20) that interacts to detect said terminal edge (29) of said log (14), said log being positionable in correspondence with said timing roller (22) with a free end of its terminal edge (29) in a position set by angle ( $\alpha$ ) according to the diameter of the log and the final position on said suction roller (24), final position in which the free end of the terminal edge (29) is positioned in the area in contact with said suction roller (24), when it reaches said suction roller (24) by means of a rolling action along said second section of

the sloping surface with the pre-established length (23).

2.(original) Gluing unit according to claim 1, characterized in that rotation of said log (14') when positioned between said second timing roller (22) and said at least one upper feeder belt (17, 26) is activated in order to place the free end of the final edge (29) out of alignment by a certain angle ( $\alpha$ ) in relation to its arrival position so as to place said final edge (29) in a pre-defined position according to the diameter of the log (14').

3. (original) Gluing unit according to claim 1, characterized in that said suction roller (24) having received said log in the position with the free end of the final edge (29) placed exactly in the area in contact with said suction roller (24), rotates in a clockwise direction like said upper roller (25) to unwind the final edge (29) for the pre-established amount.

4. (original) Gluing unit according to claim 3, characterized in that once the pre-established amount of the final edge (29) has been unwound, said upper roller (25) is blocked to induce the forward travel of said log over said glue distributor device (27) in cooperation with said at least one feeder belt (17, 26) that collaborates to evacuate the glued log towards said evacuation surface (34).

5.(original) Gluing unit for a terminal edge of a log positioned in a support structure (12) of a machine for the realizing of logs, wherein said structure (12) provides a sloping surface (13) to feed logs (14) coming from a rewinding machine, and on the end of said sloping surface (13) is envisaged a rotating sorting device (15) provided with a series of pockets (15a) to receive the individual logs (14) and to feed them towards an actual gluing unit (11) characterized in that said

gluing unit (11) comprises in sequence a lower unwinding roller (16), and at least one upper feeder belt (17, 26), immediately downstream of said unwinding roller (16) at least a section of sloping surface (21, 23) of a pre-established length followed by a suction roller (24) connected to a vacuum source, over which is positioned an upper roller (25) adjustable in height in relation to said suction roller (24) and followed by a glue distributor device (27), also being envisaged in a position higher than said unwinding roller (16) is a blowing element (19) for the terminal edge (29) of said log (14) and in a lower position, a photocell (20) that interacts to detect said terminal edge (29) of the log (14), and being envisaged last of all, an evacuation surface (34) for the glued log whereon the log fed by said unwinding roller (16) is positioned with a free end of the final edge indicated by an angle ( $\alpha$ ) according to the diameter of the log and the pre-selected length of at least one section of a sloping surface (21, 23) so that when said log positioned in this manner rolls on said at least one sloping surface (21, 23) it is positioned on said suction roller (24) with its free end of the terminal edge (29) positioned exactly in the area in contact with said suction roller (24).

6. (original) Gluing unit according to claim 5, characterized in that said suction roller (24) having received said log in the position with the free end of the final edge (29) placed exactly in the area in contact with said suction roller (24), rotates in a clockwise direction like said upper roller (25) to unwind the final edge (29) for the pre-selected amount.

7. (original) Gluing unit according to claim 6, characterized in that once the pre-established amount of the terminal edge (29) has been unwound, said upper roller (25) is blocked to induce the forward travel of said log over said glue distributor device (27) in

cooperation with said at least one feeder belt (17, 26) that collaborates with the evacuation of the glued log towards said evacuation surface (34).

8. (original) Gluing unit according to any one of the previous claims, characterized in that said at least one feeder belt (17, 26) comprise a first feeder belt (17) upstream of said upper roller (25) and a second feeder belt (26) downstream of said upper roller (25).

9. (original) Method for the application of glue in correspondence with a terminal edge of a log, wherein the terminal edge is separated by means of air and measured to predetermined length by means of a photocell in correspondence with a winding roller, and subsequently the glue is applied to the log in order to attach said terminal edge before it is rewound onto the log for evacuation, characterized in that after said step wherein the terminal edge is separated and measured from the log, said log is rolled as far as a timing roller wherein said log is rolled according to a certain angle ( $\alpha$ ) until the log is placed in a pre-determined position with the terminal edge in a pre-selected position according to the diameter of the log being processed, after which the log positioned in this manner is induced to roll along a sloping surface with a pre-established length before being positioned on a suction roller with the terminal edge positioned exactly in the area in contact with said suction roller, before the terminal edge is unwound for a pre-determined length and the glue is applied to the log.

10. (original) Method according to claim 9, characterized in that the rotation of said log (14') when positioned between said second timing roller (22) and said at least one upper feeder belt (17, 26) is activated in order to place the free end of the final edge (29) out of alignment by a certain angle ( $\alpha$ ) in relation to its

arrival position so as to place said final edge (29) in a pre-defined position according to the diameter of the log (14').

11.(original) Method according to claim 9, characterized in that having received said log in the position with the free end of the final edge (29) positioned exactly in the area in contact with said suction roller (24), said suction roller (24) is activated to rotate in a clockwise direction in the same manner as said upper roller (25) to unwind the terminal edge (29) for the pre-selected length.

12. (original) Method according to claim 11, characterized in that once the pre-established amount of the terminal edge (29) has been unwound, said upper roller (25) is set to block itself in order to induce the forward travel of said log over said glue distributor device (27) in co-operation with said at least one feeder belt (17, 26) that collaborates to evacuate the glued log towards the sloping evacuation surface (34).